Abstract of the Disclosure

A method for determining relationships among objects represented in a database. At least one interior rectangle that lies entirely within the first geometry is defined. A minimum bounding rectangle for the first geometry is defined. A minimum bounding rectangle for a second geometry is defined. The minimum bounding rectangle for the first geometry is compared with the minimum bounding rectangle for the second geometry to determine if the second geometry fulfills a primary filter condition comprising an interaction of the first geometry and the second geometry. If the second geometry fulfills the primary filter condition it is determined whether the second geometry fulfills an intermediate filter condition including an interaction of the first geometry and the second geometry by analyzing the distribution of the second geometry with respect to the at least one interior rectangle within the first geometry. It is determined whether the second geometry fulfills the secondary filter condition by comparing the second geometry with the first geometry if the second geometry fulfills the primary filter condition but is not confirmed as fulfilling the secondary filter condition based upon the distribution of the second geometry with respect to the at least one interior rectangle.